

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau



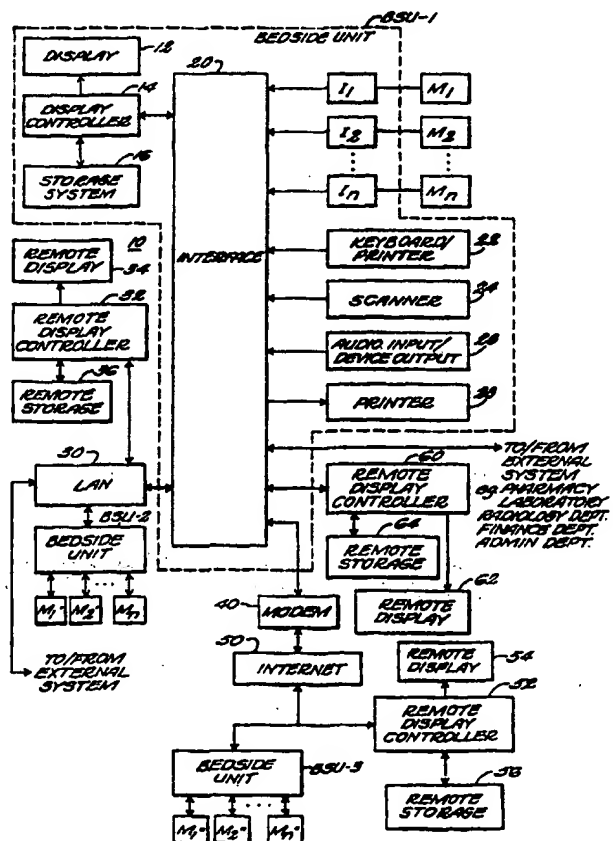
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : A61B 5/00, 5/04, G09G 5/36, 5/08		A3	(11) International Publication Number: WO 98/29790
			(43) International Publication Date: 9 July 1998 (09.07.98)
(21) International Application Number: PCT/IB97/01606		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 29 December 1997 (29.12.97)		Published With international search report.	
(30) Priority Data: 60/034,111 30 December 1996 (30.12.96) US		(88) Date of publication of the international search report: 1 October 1998 (01.10.98)	
(71) Applicant (for all designated States except US): IMD SOFT LTD. [IL/IL]; Halechi Street 31, 51200 Bnei Braq (IL).			
(72) Inventors; and (75) Inventors/Applicants (for US only): SCHOENBERG, Ido [IL/IL]; Apartment 8, Pinkas Street 15, 62662 Tel Aviv (IL). GOTLIB, Phyllis [IL/IL]; Akiva Arye Street 18, 62154 Tel Aviv (IL). SCHOENBERG, Roy [IL/IL]; Apartment 17, Shabazy Street 12, 65150 Tel Aviv (IL). SHERLIN, Hagai [IL/IL]; Moshe Shapira Street 43, 42240 Natanya (IL).			
(74) Common Representative: IMD SOFT LTD.; c/o Mark G. Lappin, Lappin & Kusmer LLP, 200 State Street, Boston, MA 02109 (US).			

(54) Title: MEDICAL INFORMATION SYSTEM

(57) Abstract

A medical information system receives patient data and information from various sources and displays such information in a variety of formats for use by members of a medical team in a hospital, clinic, or office. The system (10) includes a primary display (12), and an associated display controller (14) and system storage device (16). The controller (14) is coupled to a primary interface unit (20). Keyboard and/or pointing device (22), scanner (24), audio input and/or output device (26) and printer (28) are all coupled by way of interface (20) to the display controller (14). Access to selected subsets of patient information is provided by user selection of specific data sets identified by job function selection icons. Multiple types of patient data are selectively displayed simultaneously, and to multiple remote users.



FOR THE PURPOSES OF INFORMATION ONLY

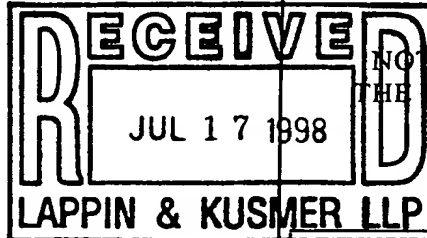
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PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: IMD SOFT LTD.
C/O MARK G. LAPPIN
LAPPIN & KUSMER LLP
200 STATE STREET
BOSTON, MA 02109



PCT

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT
OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference MDSL-110PC	Date of Mailing (day/month/year) 16 JUL 1998
International application No. PCT/IB97/01606	International filing date (day/month/year) 29 DECEMBER 1997
Applicant IMD SOFT LTD.	

1. ☒ The applicant is hereby notified that the international search report has been established and is transmitted herewith.
Filing of amendments and statement under Article 19:
 The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):
 When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the international search report; however, for more details, see the notes on the accompanying sheet.
 ***Where?** Directly to the International Bureau of WIPO
 34, chemin des Colombettes
 1211 Geneva 20, Switzerland
 Facsimile No.: (41-22) 740.14.35
 For more detailed instructions, see the notes on the accompanying sheet.
2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.
3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
 - ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
 - ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.
4. **Further action(s):** The applicant is reminded of the following:
 Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in rules 90 bis 1 and 90 bis 3, respectively, before the completion of the technical preparations for international publication.
 Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).
 Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer DAVID L. LEWIS Telephone No. (703) 306-3266
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PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference MDSL-110PC	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5	
International application No. PCT/IB97/01606	International filing date (day/month/year) 29 DECEMBER 1997	(Earliest) Priority Date 30 DECEMBER 1996
Applicant IMD SOFT LTD.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. ☐ Certain claims were found unsearchable (See Box I).
2. ☐ Unity of invention is lacking (See Box II).
3. ☐ The international application contains disclosure of a nucleotide and/or amino acid sequence listing and the international search was carried out on the basis of the sequence listing
 - ☐ filed with the international application.
 - ☐ furnished by the applicant separately from the international application,
 - ☐ but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.
 - ☐ transcribed by this Authority.
4. With regard to the title,
 - ☒ the text is approved as submitted by the applicant.
 - ☐ the text has been established by this Authority to read as follows:
5. With regard to the abstract,
 - ☐ the text is approved as submitted by the applicant.
 - ☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.
6. The figure of the drawings to be published with the abstract is:

Figure No. 1

 - ☒ as suggested by the applicant.
 - ☐ because the applicant failed to suggest a figure.
 - ☐ because this figure better characterizes the invention.

☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB97/01606**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(6) : A61B 5/00, /04; G09G 5/36, 5/08

US CL : 128/710; 345/133, 134, 329, 348

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 128/630, 710; 345/133, 134, 145, 146, 329-331, 348

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

APS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A,E	US 5,713,350 A (YOKOTA et al) 03 February 1998, column 2, lines 8-68.	1-40
A,P	US 5,682,526 A (SMOKOFF et al) 28 October 1997, column 2 lines 1-20	1-40
A,E	US 5,722,999 A (SNELL) 03 March 1998, column 3 lines 34-68.	1-40
A	US 5,361,202 A (DOUE) 01 November 1994, column 2 lines 6-68.	1-40
A,P	US 5,592,945 A (FIEDLER) 14 January 1997, column 2 lines 30-67.	1-40

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

* Special categories of cited documents:	*T*	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	*X*	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date	*Y*	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*Z*	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

11 MAY 1998

Date of mailing of the international search report

16 JUL 1998

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

DAVID L. LEWIS

Telephone No. (703) 306-3026

Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

NEW ABSTRACT

A medical information system receives patient data and information from various sources and displays such information in a variety of formats for use by members of a medical team in a hospital, clinic, or office. The system (10) includes a primary display (12), and an associated display controller (14) and system storage device (16). The controller (14) is coupled to a primary interface unit (20). Keyboard and/or pointing device (22), scanner (24), audio input and/or output device (26) and printer (28) are all coupled by way of interface (20) to the display controller (14). Access to selected subsets of patient information is provided by user selection of specific data sets identified by job function selection icons. Multiple types of patient data are selectively displayed simultaneously, and to multiple remote users.

PATENT COOPERATION TREATY

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From the INTERNATIONAL BUREAU

NOTIFICATION OF DEFECTS IN DEMAND

(PCT Rule 60.1(d))

To:

United States Patent and Trademark
Office
(Box PCT)
Crystal Plaza 2
Washington, DC 20231
ETATS-UNIS D'AMERIQUE

in its capacity as International Preliminary Examining Authority

Date of mailing

(day/month/year) 24 August 1998 (24.08.98)

International application No.

PCT/IB97/01606

International filing date

(day/month/year) 29 December 1997 (29.12.97)

Applicant

IMD SOFT LTD. et al

The International Bureau hereby notifies the International Preliminary Examining Authority that it has found that the demand is defective for the reasons indicated below:

1. ☐ It does not contain the election of at least one Contracting State bound by Chapter II (Rule 53.2(a)(iv) and 53.7).
2. ☐ It does not permit the identification of the international application to which it relates (Rule 60.1(b)).
3. ☐ It does not contain the required petition (Rules 53.2(a)(i) and 53.3).
4. ☐ It does not contain the required indications concerning the agent as specified in the Annex (Rules 53.2(a)(ii) and 53.5).
5. ☐ It does not contain the required indications concerning the international application as specified in the Annex (Rules 53.2(a)(iii) and 53.6).
6. ☐ It is not submitted in the required language which is _____ (Rule 55.1).
7. ☐ It is not made on the printed form (Rule 53.1(a)).
8. ☐ It is presented as a computer print-out the particulars of which do not comply with the Administrative Instructions (Rule 53.1(a)).
9. ☒ It does not contain the required indications concerning the applicant as specified in the Annex (Rules 53.2(a)(ii) and 53.4).
10. ☐ It does not contain the required signature as specified in the Annex (Rules 53.2(b) and 53.8).

Other observations, if necessary:

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorised officer

N. Fischer

Telephone No.: (41-22) 338.83.38

Continuation of item 4: As to indications concerning the agent (Rule 4.4), the demand:

- a. ☐ does not properly indicate the agent's name (specify):
- b. ☐ does not indicate the agent's address.
- c. ☐ does not properly indicate the agent's address (specify):

Continuation of item 5: As to indications concerning the international application, the demand does not indicate:

- a. ☐ the international filing date.
- b. ☐ the international application number.
- c. ☐ the name of the receiving Office, where the international application number was not known to the applicant at the time the demand was filed.
- d. ☐ the title of the invention.

Continuation of item 9: As to indications concerning the applicant (Rules 4.4 and 4.5), the demand:

- a. ☐ does not indicate all the applicants for the elected States.
- b. ☐ does not properly indicate the applicant's name (specify):
- c. ☐ does not indicate the applicant's address.
- d. ☒ does not properly indicate the applicant's address (specify):

Postal codes missing for all ali's.

- e. ☐ does not indicate the applicant's nationality.
- f. ☐ does not indicate the applicant's residence.

Continuation of item 10: As to requirements concerning signature (Rules 4.15 and 90.4), the demand:

- a. ☐ is not signed.
- b. ☐ is not signed by all the applicants for the elected States.
- c. ☐ is not accompanied by the statement referred to in the check list in Box No. VI of the demand explaining the lack of the signature of an applicant for the election of the United States of America.
- d. ☐ is signed by what appears to be an agent/common representative but
- ☐ the demand is not accompanied by a power of attorney appointing him.
 - ☐ the power of attorney accompanying the demand is not signed by all the applicants for the elected States.

PATENT COOPERATION TREATY

PCT

NOTIFICATION CONCERNING
AMENDMENTS OF THE CLAIMS(PCT Rule 62 and
Administrative Instructions, Section 417)

From the INTERNATIONAL BUREAU

To:

United States Patent and Trademark
Office
(Box PCT)
Crystal Plaza 2
Washington, DC 20231
ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year)

24 August 1998 (24.08.98)

in its capacity as International Preliminary Examining Authority

International application No.

PCT/IB97/01606

International filing date (day/month/year)

29 December 1997 (29.12.97)

Applicant

IMD SOFT LTD. et al

The International Bureau hereby informs the International Preliminary Examining Authority that no amendments under Article 19 have been received by the International Bureau (Administrative Instructions, Section 417).

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No. (41-22) 740.14.35

Authorized officer

N. Fischer

Telephone No. (41-22) 338.83.38

PATENT COOPERATION TREATY

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NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

United States Patent and Trademark
Office
(Box PCT)
Crystal Plaza 2
Washington, DC 20231
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year)

24 August 1998 (24.08.98)

International application No.

PCT/IB97/01606

Applicant's or agent's file reference

MDSL-110PC

International filing date (day/month/year)

29 December 1997 (29.12.97)

Priority date (day/month/year)

30 December 1996 (30.12.96)

Applicant

SCHOENBERG, Ido et al

1. The designated Office is hereby notified of its election made:



in the demand filed with the International Preliminary Examining Authority on:

28 July 1998 (28.07.98)



in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

N. Fischer

Telephone No.: (41-22) 338.83.38

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

REC'D 02 AUG 1999

WIPO PCT

09/34/065

37E1 3737

Applicant's or agent's file reference MDSL-110PC	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/IB97/01606	International filing date (day/month/year) 29 DECEMBER 1997	Priority date (day/month/year) 30 DECEMBER 1996
International Patent Classification (IPC) or national classification and IPC IPC(6): AG1B 5/00, /04; G09G 5/36, 5/08; and US Cl.: 128/710; 345/133, 134, 329, 348;		
Applicant IMD SOFT LTD.		

- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 3 sheets.
☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 0 sheets.

- This report contains indications relating to the following items:

- ☒ Basis of the report
- ☐ Priority
- ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- ☐ Lack of unity of invention
- ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Certain documents cited
- ☐ Certain defects in the international application
- ☐ Certain observations on the international application

Date of submission of the demand 28 JULY 1998	Date of completion of this report 30 JUNE 1999
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer DAVID L. LEWIS Telephone No. (703) 306-3026 <i>Joni Hill</i>

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/IB97/01606

I. Basis of the report

1. This report has been drawn on the basis of *(Substitute sheets which have been furnished to the receiving Office in response to an invitation*

☒ the international application as originally filed.

☒ the description, pages 1-18 , as originally filed.

pages NONE , filed with the demand.

pages NONE , filed with the letter of _____.

pages _____ , filed with the letter of _____.

☒ the claims, Nos. 1-40 , as originally filed.

Nos. NONE , as amended under Article 19.

Nos. NONE , filed with the demand.

Nos. NONE , filed with the letter of _____.

Nos. _____ , filed with the letter of _____.

☒ the drawings, sheets/fig 1-5 , as originally filed.

sheets/fig NONE , filed with the demand.

sheets/fig NONE , filed with the letter of _____.

sheets/fig _____ , filed with the letter of _____.

2. The amendments have resulted in the cancellation of:

☒ the description, pages NONE .

☒ the claims, Nos. NONE .

☒ the drawings, sheets/fig NONE .

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the ~~Supplemental Box~~ Additional observations below (Rule 70.2(c)).

4. Additional observations, if necessary:

NONE

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/IB97/01606

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. STATEMENT**

Novelty (N)

Claims 1-40 YESClaims NONE NO

Inventive Step (IS)

Claims 1-40 YESClaims NONE NO

Industrial Applicability (IA)

Claims 1-40 YESClaims NONE NO**2. CITATIONS AND EXPLANATIONS**

Claims 1-40 meets the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest a display signal generator responsive to said user select device for generating k of said display signals, each of said k display signals being representative of an associated one of said selected subsets of patient data and being associated with one of said regions of said image field.

----- NEW CITATIONS -----
NONE